U.S.S.R. COMPUTATIONAL MATHEMATICS AND MATHEMATICAL PHYSICS

Cover-to-cover translation of
Zhurnal vychislitel'noi matematiki i matematicheskoi fiziki

VOL.
21
981

LIST OF CONTENTS AND AUTHOR INDEX

VOLUME 21, 1981

PERGAMON PRESS
OXFORD : NEW YORK : PARIS : FRANKFURT

U.S.S.R. COMPUTATIONAL MATHEMATICS AND MATHEMATICAL PHYSICS

Cover-to-cover translation of
Zhurnal vychislitel'noi matematiki i matematicheskoi fiziki
Russian Original Copyright
Nauka, 90 Profsoyuznaya ul. Moscow 117485
Published bi-monthly by Pergamon Press

VOL.
21
198

HONORARY EDITORIAL ADVISORY BOARD

R. A. BROOKER (*Manchester*)
L. FOX (*Oxford*)
D. C. GILLES (*Glasgow*)
A. S. HOUSEHOLDER (*Oak Ridge*)
G. F. J. TEMPLE (*Oxford*)
A. THOM (*Oxford*)
J. H. WILKINSON (*N.P.L., Teddington*)

Scientific Translation Editor:
R. C. Glass, M.A., M.Sc.,
The City University, St. John Street, London, E.C.1.

Translators: J. Berry✠ and D. E. Brown

Publishing and Advertising Office:
Pergamon Press Ltd., Headington Hill Hall, Oxford, OX3 0BW

Subscription Rates
1983 *Subscription rate* $560.00 (*including postage and insurance*)
Two year rate (1983/1984) $1,064.00
Subscriptions are only serviced after payment has been received and are not accepted for less than one year.

Subscription enquiries from customers in America should be sent to:
Pergamon Press Inc., Maxwell House, Fairview Park, Elmsford, NY 10523, *U.S.A.,*
and for the remainder of the world to:
*Pergamon Press Ltd., Headington Hill Hall, Oxford OX*3 0*BW, U.K.*

Microform Subscriptions and Back Issues
Back issues of all previously published volumes are available in the regular editions and on microfilm and microfiche.
Current subscriptions are available on microfiche simultaneously with the paper edition and on microfilm on completion of the annual index at the end of the subscription year.

Copyright © 1983 Pergamon Press Ltd.

No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, electrostatic, magnetic tape, mechanical, photocopying, recording or otherwise, without permission in writing from the copyright holder.

U.S. COPYRIGHT LAW APPLICABLE TO USERS IN THE U.S.A.

The Article Fee Code on the first page of an article in this journal indicates the copyright owner's consent that, in the U.S.A., copies may be made for personal or internal use provided the stated fee for copying, beyond that permitted by Section 107 or 108 of the United States Copyright Law, is paid. The appropriate remittance should be forwarded with a copy of the first page of the article to the Copyright Clearance Center Inc., 21 Congress Street, Salem, MA 01970. If a code does not appear copies of the article may be made without charge, provided permission is obtained from the publisher. The copyright owner's consent does not extend to copying for general distribution, for promotion, for creating new works or for resale. Specific written permission must be obtained from the publisher for such copying.
In case of doubt please contact your nearest Pergamon office.

PUBLISHED BY

PERGAMON PRESS LTD.

OXFORD · NEW YORK · PARIS · FRANKFURT

VOLUME CONTENTS

VOL. 21, No. 1 1981

	1	Ivan Semenovich Berezin celebrates his sixtieth birthday
V. S. YUFEREV	2	Local approximation by cubic splines
Z. I. KRUPKA	8	Arithmetic operations on continued fractions
A. N. PEREGUDOV	14	The second boundary value problem for quasi-linear parabolic systems of the type of the systems of chemical kinetics
B. S. POL'SKII	26	On a method for solving elliptic difference equations
V. G. OSMOLOVSKII and V. YA. RYVKIND	33	A method of separating the domains for elliptic equations with discontinuous coefficients
V. V. VORONIN and V. A. TSETSOKHO	38	Numerical solution, by interpolation and collocation, of integral equations of the 1st kind with a logarithmic singularity
V. M. GOLOVIZNIN, T. K. KORSHIYA, A. A. SAMARSKII, V. F. TISHKIN and A. P. FAVORSKII	53	Variational schemes of magnetohydrodynamics in an arbitrary coordinate system
V. G. MATSENKO	69	A class of equations of mathematical physics arising in biological macrosystem dynamics
S. A. MASALOV	81	Method of semi-inversion and infinite systems of equations in some wave diffraction problems
T. H. BELOVA, N. A. VORONOV, N. B. KONYUKHOVA and B. S. PARIISKII	89	Numerical investigation of the stability of particle-like solutions of the scalar field equations
A. V. ADEEV and A. S. MEL'NICHENKO	107	Linearization of the energy equation when it is solved jointly with the radiative transfer equation
A. I. SHERSTYUK and N. S. YAKOVLEVA	113	Application of the two-centre functions of a purely discrete spectrum in the adiabatic representation of the three-body problem
V. K. POLEVIKOV	126	Application of the relaxation method to solve steady difference problems of convection
N. A. MELLER	138	The subsonic flow of a gas past a wing profile
V. E. KARYAKIN	150	Calculation of the hypersonic flow of a viscous gas past bodies of revolution at small angles of attack
YU. A. ZUEV	156	A method of improving classification reliability when several classifiers are available, based on the principle of monotonicity
S. P. TARASOV	167	Properties of the trajectories of the appointments problem and the travelling-salesman problem
	175	Erratum

VOL. 21, No. 2 1981

	1	Mikhail Alekseevich Lavrent'ev (1900–1980)
Z. GASPAR and G. POPPER	4	Solution of the algebraic eigenvalue problem by division into cells
P. F. ZHUK	12	On the asymptotic properties of the method of steepest descent in eigenvalue problems
V. K. GORBUNOV	27	Dispersion of a system of sets and computational problems

A. N. Golodnikov	40	Numerical search for a distribution function satisfying a linear system of constraints
S. L. Kaganovich	48	Optimization of linear variable structure systems
V. M. Panin	57	Some methods of solving convex programming problems
Nguen Ngok Tyu and N. V. Chernikova	73	A new algorithm for solving the discrete programming problem
A. I. Tolstykh	83	Implicit schemes of increased accuracy for systems of equations
A. V. Dzhishkariani	99	The solution of singular integral equations by collocation methods
A. I. Khisamutdinov	108	Unbiased random estimates of iterations of an integral operator with power non-linearity
Yu. I. Mokin	115	An algorithm for computing the scalar potential in the beam-shaping problem
V. A. Galkin	129	An iterative method of solving a class of evolution equations connected with physical kinetics
N. V. Ivanov and V. Kh. Khoruzhii	144	On a numerical method of solving quantum-mechanical collision equations
V. M. Goloviznin, A. A. Samarskii and A. P. Favorskii	153	A variational principle for obtaining magnetohydrodynamic equations in mixed Eulerian–Lagrangian variables
V. Ya. Arsenin, A. A. Dumova, V. P. Zagonov and M. N. Nechaev	167	Electromagnetic radiation from an unsteady source of gamma-quanta on a surface with finite electrical conductivity
G. A. Mikhailov and S. G. Musikhin	175	Monte Carlo algorithms for complicated reactor cell calculations
V. G. Korneev	184	The numerical solution in stresses of problems of shell theory using oblique-angled meshes
V. S. Deineka and I. N. Molchanov	194	Schemes of the method of finite elements with a high order of accuracy for problems of elasticity theory
N. N. Katerinochkina	212	Search for a maximum upper zero for a class of monotonic functions in k-valued logic
I. T. Kadoshchuk	224	The invariance of some models of recognition algorithms
		Short Communications
V. V. Ermakov and N. N. Kalitkin	235	The optimal step and regularization for Newton's method
A. A. Fonarev	243	A method of solving monotonic variational inequalities
Yu. M. Kaniovskii	245	On a method of random search
V. A. Daugavet	250	A modification of Wolfe's method
P. N. Vabishchevich	256	Difference methods for solving the Cauchy problem for elliptic equations
G. I. Zmievskaya, A. A. Pyarnpu and V. I. Shematovich	260	Application of Monte Carlo methods to the study of the states of gas mixtures with internal degrees of freedom
V. M. Borisov and I. E. Mikhailov	266	The optimization of the supersonic parts of three-dimensional nozzles
		Scientific Information
	270	All-Union Symposium on "Numerical Methods in Hydraulics"

VOL
21
198

VOL. 21, No. 3 1981

V. V. Voevodin and E. E. Tyrtyshnikov	1	Numerical methods for solving problems with Toeplitz matrices
A. G. Fakeev	15	A class of iterative processes for solving degenerate systems of linear algebraic equations
S. A. Kas'yanyuk	23	The interpretation of data derived from a discrete set of sensing elements
A. M. Ter-Krikorov	30	An optimal control problem with mixed constraints for systems with distributed parameters

R. P. Fedorenko	42	Minimization of unsmooth functions
S. K. Zavriev	54	A stochastic method of discrepancies for seeking max-min
D. D. Frolkin	65	A stochastic problem of stock planning and irrigation
G. P. Veliev and K. Sh. Mamedov	75	A method of solving the knapsack problem
V. F. Zolotukhin	82	On problems of selecting the minimum number of performers
N. I. Yanev	95	Solution of a simple allocation problem
A. S. Andreev, V. A. Popov and Bl. Sendov	104	Error estimates for the numerical solution of ordinary differential equations
B. S. Pariiskii	121	Computational errors in some methods of differential pivotal condensation
V. F. Butuzov and Yu. P. Udodov	134	Asymptotic solution of a system of singularly-perturbed equations of elliptic type with an angular boundary layer
A. N. Meleshko	147	Approximate solution of Hilbert's homogeneous boundary value problem for a circle using polylogarithms
M. L. Gol'din, A. P. Dorokhov, E. M. Dyn'kin and L. I. Potepun	155	Discrete solutions of convolution-type equations and the mathematical processing of resonance spectra
V. I. Gryn	166	A scheme for computing radiative transfer with Compton scattering
V. A. Gasilov, V. F. Tishkin, A. P. Favorskii and M. Yu. Shashkov	178	The use of the parallel-chord method to solve hydrodynamic difference equations
A. D. Nadezhin	192	The eigenvalues and wave functions of the two-centre problem in quantum mechanics
A. L. Pavlov	202	The non-linear problem of diffraction of waves by a bounded body
Yu. L. Levitan, B. D. Moiseenko, V. G. Priimak, B. L. Rozhdestvenskii and V. K. Sidorova	208	Methods for the numerical modelling of turbulent flows of a fluid in a channel
L. V. Shurshalov	220	Analysis of the configurations that occur when an arbitrary discontinuity decays
U. A. Abdugaliev	229	Problems involved in synthesizing tests for tables

Short Communications

A. I. Shapkin	237	A method of solving systems of linear algebraic equations of large dimension
Kh. D. Ikhramov	240	Some methods of using symmetry to reduce the order of linearly-algebraic problems
J. K. Merikoski	245	On the submultiplicativeness of some matrix norms
F. P. Vasil'ev and M. D. Yachimovich	248	An iterative regularization of Newton's method
V. V. Dyakin and V. Ya. Raevskii	253	The method of penalty functions in eigenvalue problems
V. A. Bondarenko and A. A. Korotkin	259	Analysis of discrete optimization algorithms using incomplete information
L. L. Sidorenko and A. I. Khisamutdinov	264	Evaluation by Monte Carlo methods of the derivatives of linear functionals of the flow with respect to the parameters of surfaces
A. A. Ezhov and S. B. Shikhov	269	The equations of the invariant imbedding method for the functional of the solution of the transport equation
I. G. Zhidov and V. G. Rogachev	274	The development of axisymmetric perturbations when a gaseous cavity is compressed by an ideal fluid

OL.
21
981

G. S. Romanov, M. V. Suzdenkov and A. V. Teterev — 278 The accuracy of the large-particle method for gas-dynamic problems

I. N. Sidorov — 286 An iterative numerical method of computing the internal flows of a weakly ionized plasma in an electric field

VOL. 21, No. 4 1981

Fam Van At — 1 Determination of the greatest eigenvalue and the corresponding eigenvector of a non-negative matrix

V. A. Daugavet and V. N. Malozemov — 19 Quadratic rate of convergence of a linearization method for solving discrete minimax problems

A. E. Bunakov — 29 Analysis of the role of information pattern in dynamic models of conflict situations

V. I. Tsurkov — 38 Control-aggregation-based decomposition in dynamic programming

V. N. Nefedov — 49 Convex lexicographic problems

V. Yu. Lebedev — 66 A decomposition method of solving block problems of linear programming with connecting variables

I. P. Boglaev — 71 A variational difference scheme for a boundary value problem with a small parameter in the highest derivative

V. A. Vinokurov and N. F. Repnikov — 81 An iterational method for solving non-linear boundary value problems

L. I. Kamynin and B. N. Khimchenko — 92 On a strong extremum principle for a weakly parabolically second-order connected operator

G. P. Astrakhantsev and L. A. Rukhovets — 111 The method of relaxation on a sequence of meshes for elliptic equations with natural boundary conditions

M. A. Veliev and D. K. Kyazimov — 131 Approximation solution of Tricomi's problem by linear programming

I. P. Dobrovol'skii — 139 Richardson extrapolation in the approximate solution of Fredholm integral equations of the second kind

E. P. Zhidkov, Nguen Mong and B. N. Khoromskii — 149 Methods of increasing the accuracy of approximate solutions of non-linear singular integral equations of the Chew–Low type

A. A. Ezhov and S. B. Shikhov — 158 An application of the method of invariant imbedding

V. A. Galaktionov — 167 Some properties of travelling waves in a medium with non-linear thermal conductivity and a source of heat

Ngo Zui Kan — 177 The rotational motion of a rigid body with a cavity partly filled with a liquid

V. A. Gushchin — 190 The splitting method for problems of the dynamics of an inhomogeneous viscous imcompressible fluid

O. M. Belotserkovskii, M. M. Golomazov and A. V. Shabalin — 204 Study of the effect of a strong blast of a gas from the surface on a hypersonic flow past blunt bodies

Short Communications

Kh. D. Ikramov — 216 The complexity of some spectral problems for Toeplitz matrices

M. M. Kovalev and V. M. Kotov — 221 Analysis of the gradient solution of the travelling salesman problem

E. A. Yakovleva — 225 The average over two small parameters of an elliptic equation with rapidly oscillating coefficients

S. A. Gabov — 233 On V. A. Steklov's self-adjoint problem with a directional derivative

VOL. 21 198

L. K. MARTINSON — 237 The thermal boundary layer in a non-linear medium with volume absorption of heat

E. S. ANDREEV, G. V. DUMKINAT and M. YU. KOZMANOV — 242 Some accurate solutions of the equations of spectral non-stationary radiative transfer

P. A. ANDROSENKO and G. V. POPOVA — 245 An efficient method of modelling the Klein–Nishina–Tamm distribution

Scientific Information

252 Seminar on "Mathematical Problems of Chemical Kinetics"

254 Book Reviews

VOL. 21, No. 5 1981

VOL. 21 1981

A. M. FEDOTOV — 1 Optimal linear procedures for solving linear operator equations with random data

A. B. KUKARKIN and E. I. NOVIKOVA — 16 Evaluation of integrals of rapidly oscillating functions by Longman's method

V. V. NEKRUTKIN — 25 Justification of the selection method for a multiplicative pseudo-random number generator

V. P. TARASOVA — 33 Optimal algorithms for seeking the interval of greatest values for a class of functions

N. K. BELENOVA — 42 The problem of the uniform distribution of the flow in a network

S. V. RZHEVSKII — 51 An ϵ-subgradient method for solving convex programming problems

YU. A. BELOV — 58 A single-stage block type stochastic problem with row probability constraints

V. V. PODINOVSKII — 65 Generalized antagonistic games

A. A. BYKOV — 80 Stability to rounding errors of directed orthogonalization

R. D. LAZAROV and V. L. MAKAROV — 95 Difference scheme of second order of accuracy for the axisymmetric Poisson equation in generalized solutions

B. D. MOISEENKO and I. V. FRYAZINOV — 108 Conservative difference schemes for the equations of an incompressible fluid in Euler variables

V. N. ORLOV and L. I. ROZONOER — 120 The variational principle for the equations of macroscopic dynamics and its applications to chemical kinetics

A. I. VYSKREBENTSEV — 134 A method for the numerical solution of the radiation transport equation in one-dimensional problems of gas dynamics

A. T. FEDORCHENKO — 143 A method for the numerical investigation of unsteady subsonic flows of viscous gas in ducts

E. N. VEDENYAPIN and V. N. KUKUDZHANOV — 160 A method for the numerical integration of unsteady problems of the dynamics of an elastic medium

V. S. VIKHRENKO and M. I. KULAK — 175 The difference scheme of a system of microscopic equations of a condensed medium

M. N. MOSKAL'KOV — 182 The use of the dispersion properties of a difference scheme of gas dynamics

L. V. BASKALOVA and YU. I. ZHURAVLEV — 189 A model of recognition algorithms with representative samples and systems of supporting sets

V. L. MATROSOV — 199 Correct algebras of bounded capacity on the set of algorithms of the calculation of estimates

S. I. KASHKEVICH 216 Optimization in a class of recognition algorithms with quality functional of a special form

V. M. SATLER and S. A. YAKOVLEV 229 Solution of prediction problems by the methods of recognition theory

Short communications

A. M. VETOSHKIN 235 A modification of Horner's scheme

E. V. GAVRUSHENKO and V. N. PRUPIS 236 The stability of bases in finite-dimensional vector spaces

V. N. STRAKHOV 240 The choice of the constant in A. A. Tikhonov's rule for specifying the regularization parameter in the solution of linear conditionally well-posed problems

A. V. KRESTININ and B. V. PAVLOV 244 The monopolar rational fractional approximation of the exponent in the complex plane

S. M. ERMAKOV and B. B. POKHODZEI 249 Methods of simulating discrete random variables based on randomization of the parameters of the distributions

N. A. STRELKOV 254 Projection-difference analogs of the Laplace operator

A. V. OSTROUMOV 257 Approximate solution of the heat conduction problem with a moving source of heat

V. M. KULYGIN, A. G. SVESHNIKOV, N. N. SEMASHKO and S. A. YAKUNIN 262 The problem of optimizing acceleration boost systems for intense flows of charged particles

E. V. ZAKHAROV and N. I. NESMAYANOVA 268 Integral equations of the first kind in problems of the diffraction of electromagnetic fields by solids of revolution

L. N. TARASENKO 272 On the convergence of an iterative method of investigating toroidal axisymmetric flows with a free boundary

V. M. KRIVTSOV and I. L. OSIPOV 278 Numerical solution of the problem of profiling the subsonic part of a Laval nozzle for flows of radiating gas

VOL. 21 1981

VOL. 21, No. 6 1981

1 Academician Andrei Nikolaevich Tikhonov celebrates his seventy-fifth birthday

YU. L. GAPONENKO 3 Method of contracting compacta for solving non-linear ill-posed problems

O. V. VASIL'EV and A. I. TYATYUSHKIN 14 A method for solving optimal control problems based on the maximum principle

A. G. SUKHAREV 23 A stochastic algorithm for extremum search, optimal in one step

S. A. ASHMANOV 40 Stability conditions for linear programming problems

L. G. GURIN 49 Equilibrium points and pareto points in problems with random factors

V. V. ZAIKA and S. M. SHVARTIN 61 Numerical characteristics of matrix cycles

B. MUSILIMOV and M. OTELBAEV 68 Estimation of the least eigenvalues for the matrix class corresponding to the Sturm–Liouville difference equation

G. A. MIKHAILOV 73 Non-linear theory of optimization of statistical modelling for solving integral equations of the second kind

L. N. SHABLITSKAYA 83 Finding periodic solutions by difference methods

S. I. SERDYUKOVA 89 Study of the stability of a difference boundary value problem, approximating the system of equations of acoustics taking thermal conductivity into account

Yu. V. Shestopalov	97	On the spectrum of a family of non-self-adjoint boundary value problems for systems of Helmholtz equations
A. A. Danilov and V. I. Ivanov	109	Corrections to Fok's asymptotic form for the diffraction field close to a surface of variable curvature. II
A. F. Nikiforov and V. V. Uvarov	120	Determination of the concentration of gaseous impurities in the atmosphere from the data of a laser probe
V. V. Smelov	131	The principle of iteration over subdomains in problems involving the transport equation
V. V. Varlamov	143	The asymptotic solution of a problem in the theory of waves on the surface of a vortex flow
L. S. Klabukova	155	On the differential operator of problems of the theory of momentless elastic shells of non-negative Gaussian curvature
V. V. Ryazanov	172	The committee synthesis of recognition and classification algorithms
M. B. Aidarkhanov	183	Recognition algorithms in the continuous teaching of information—I
N. A. Sokolov	191	The search for the maximum upper zero for a class of monotonic functions of finite-valued logic
A. S. Dzyuba	205	The correctness of the linear closure of a family of recognition algorithms with separating hyperplanes
		Short communications
V. N. Vinogradov, E. V. Gai and N. S. Rabotnov	217	Statistically optimal interpolation by polynomials
A. S. Marchenko and T. P. Romanenko	220	The statistical modelling of Markov gamma sequences
A. N. Zavorin	223	The effect of step variation on the stability of some backward differentiation formulas
V. V. Kravtsov	229	On the non-basicity of a system of functions
I. E. Shparlinskii	231	The distribution of the fractional parts of recurrent sequences
Yu. P. Golovachev and A. A. Fursenko	236	A staircase method of computing viscous gas flows
A. K. Valeev	241	A method for the numerical solution of a one-dimensional transport equation
	247	Book reviews

OL.
21
981

VOL.
21
198

AUTHOR INDEX

ABDUGALIEV, V. A. 229(3)
ADEEV, A. V. 107(1)
AIDARKHANOV, M. B. 183(6)
ANDREEV, A. S. 104(3)
ANDREEV, E. S. 242(4)*
ANDROSENKO, P. A. 245(4)*
ARSENIN, V. YA. 167(2)
ASHMANOV, S. A. 40(6)
ASTRAKHANTSEV, G. P. 111(4)

BASKALOVA, L. V. 189(5)
BELENOVA, N. K. 42(5)
BELOTSERKOVSKII, O. M. 204(4)
BELOV, YU. A. 58(5)
BELOVA, T. H. 89(1)
BOGLAEV, I. P. 71(4)
BONDARENKO, V. A. 259(3)*
BORISOV, V. M. 266(2)*
BUNAKOV, A. E. 29(4)
BUTUZOV, V. F. 134(3)
BYKOV, A. A. 80(5)

CHERNIKOVA, N. V. 73(2)

DANILOV, A. A. 109(6)
DAUGAVET, V. A. 250(2)*, 19(4)
DEINEKA, V. S. 194(2)
DOBROVOL'SKII, I. P. 139(4)
DOROKHOV, A. P. 155(3)
DUMKINAT, G. V. 242(4)*
DUMOVA, A. A. 167(2)
DYAKIN, V. V. 253(3)
DYN'KIN, E. M. 155(3)*
DZHISHKARIANI, A. V. 99(2)
DZYUBA, A. S. 205(6)

ERMAKOV, S. M. 249(5)*
ERMAKOV, V. V. 235(2)*
EZHOV, A. A. 269(3)*, 158(4)

FAKEEV, A. G. 15(3)
FAM VAN AT 1(4)
FAVORSKII, A. P. 53(1), 153(2)
FEDORCHENKO, A. T. 143(5)
FEDORENKO, R. P. 42(3)
FEDOTOV, A. M. 1(5)
FONAREV, A. A. 243(2)*
FROLKIN, D. D. 65(3)
FRYAZINOV, I. V. 108(5)
FURSENKO, A. A. 236(6)*

GABOV, S. A. 233(4)*
GAI, E. V. 217(6)*
GALAKTIONOV, V. A. 167(4)
GALKIN, V. A. 129(2)
GAPONENKO, YU. L. 3(6)
GASILOV, V. A. 178(3)
GASPAR, Z. 4(2)
GAVRUSHENKO, E. V. 236(5)
GOL'DIN, M. L. 155(3)
GOLODNIKOV, A. N. 40(2)
GOLOMAZOV, M. M. 204(4)
GOLOVACHEV, YU. P. 236(6)*
GOLOVIZNIN, V. M. 53(1), 153(2)
GORBUNOV, V. K. 27(2)
GRYN, V. I. 166(3)
GURIN, L. G. 49(6)
GUSHCHIN, V. A. 190(4)

IKHRAMOV, KH. D. 240(3)*
IKRAMOV, KH. D. 216(4)*
IVANOV, N. V. 144(2)
IVANOV, V. I. 109(6)

KADOSHCHUK, I. T. 224(2)
KAGANOVICH, S. L. 48(2)
KALITKIN, N. N. 235(2)
KAMYNIN, L. I. 92(4)
KANIOVSKII, YU. M. 245(2)*
KARYAKIN, V. E. 150(1)
KASHKEVICH, S. I. 216(5)
KAS'YANYUK, S. A. 23(3)
KATERINOCHKINA, N. N. 212(2)
KHIMCHENKO, B. N. 92(4)
KHISAMUTDINOV, A. I. 108(2), 264(3)*
KHOROMSKII, B. N. 149(4)
KHORUZHII, V. KH. 144(2)
KLABUKOVA, L. S. 155(6)
KONYUKHOVA, N. B. 89(1)
KORNEEV, V. G. 184(2)
KOROTKIN, A. A. 259(3)*
KORSHIYA, T. K. 53(1)
KOTOV, V. M. 221(4)*
KOVALEV, M. M. 221(4)*
KOZMANOV, M. YU. 242(4)*
KRAVTSOV, V. V. 229(6)*
KRESTININ, A. V. 244(5)*
KRIVTSOV, V. M. 278(5)*
KRUPTA, Z. I. 8(1)
KUKARKIN, A. B. 16(5)
KUKUDZHANOV, V. N. 160(5)
KULAK, M. I. 175(5)
KULYGIN, V. M. 262(5)*
KYAZIMOV, D. K. 131(4)

LAZAROV, R. D. 95(5)
LEBEDEV, V. YU. 66(4)
LEVITAN, YU. L. 208(3)

MAKAROV, V. L. 95(5)
MALOZEMOV, V. N. 19(4)
MAMEDOV, K. SH. 75(3)
MARCHENKO, A. S. 220(6)*
MARTINSON, L. K. 237(4)*
MASALOV, S. A. 81(1)
MATROSOV, V. L. 199(5)
MATSENKO, V. G. 69(1)
MELESHKO, A. N. 147(3)
MEL'NICHENKO, A. S. 107(1)
MELLER, N. A. 138(1)
MERIKOSKI, J. K. 245(3)*
MIKHAILOV, G. A. 175(2), 73(6)
MIKHAILOV, I. E. 266(2)*
MOISEENKO, B. D. 208(3), 108(5)
MOKIN, YU. I. 115(2)
MOLCHANOV, I. N. 194(2)
MOSKAL'KOV, M. N. 182(5)
MUSIKHIN, S. G. 175(2)
MUSILIMOV, B. 68(6)

NADEZHIN, A. D. 192(3)
NECHAEV, M. N. 167(2)
NEFEDOV, V. N. 49(4)
NEKRUTKIN, V. V. 25(5)
NESMAYANOVA, N. I. 268(5)*
NGO ZUI KAN, 177(4)
NGUEN MONG, 149(4)
NGUEN NGOK TYU, 73(2)
NIKIFOROV, A. F. 120(6)
NOVIKOVA, E. I. 16(5)

ORLOV, V. N. 120(5)
OSIPOV, I. L. 278(5)*
OSMOLOVSKII, V. G. 33(1)
OSTROUMOV, A. V. 257(5)*
OTELBAEV, M. 68(6)

PANIN, V. M. 57(2)
PARIISKII, B. S. 89(1), 121(3)
PAVLOV, A. L. 202(3)
PAVLOV, B. V. 244(5)*
PEREGUDOV, A. N. 14(1)
PODINOVSKII, V. V. 65(5)
POKHODZEI, B. B. 249(5)8
POLEVIKOV, V. K. 126(1)
POL'SKII, B. S. 26(1)
POPOV, V. A. 104(3)
POPOVA, G. V. 245(4)*

Short Communication.

POPPER, G. 4(2)
POTEPUN, L. I. 155(3)
PRIIMAK, V. G. 208(3)
PRUPIS, V. N. 236(5)*
PYARNPU, A. A. 260(2)*

RABOTNOV, N. S. 217(6)*
RAEVSKII, V. YA. 253(3)*
REPNIKOV, N. F. 81(4)
ROGACHEV, V. G. 274(3)*
ROMANENKO, T. P. 220(6)*
ROMANOV, G. S. 278(3)*
ROZHDESTVENSKII, B. L. 208(3)
ROZONOER, L. I. 120(5)
RUKHOVETS, L. A. 111(4)
RYAZANOV, V. V. 172(6)
RYVKIND, V. YA. 33(1)
RZHEVSKII, S. V. 51(5)

SAMARSKII, A. A. 53(1), 153(2)
SATLER, V. M. 229(5)
SEMASHKO, N. N. 262(5)*
SENDOV, BL. 104(3)
SERDYUKOVA, S. I. 89(6)
SHABALIN, A. V. 204(4)
SHABLITSKAYA, L. N. 83(6)
SHAPKIN, A. I. 237(3)*
SHEMATOVICH, V. I. 260(2)*
SHERSTYUK, A. I. 113(1)
SHESTOPALOV, YU. V. 97(6)
SHIKHOV, S. B. 269(3)*, 158(4)
SHPARLINSKII, I. E. 231(6)*
SHURSHALOV, L. V. 220(3)
SHVARTIN, S. M. 61(6)
SIDORENKO, L. L. 264(3)*
SIDOROV, I. N. 286(3)*
SIDOROVA, V. K. 208(3)
SMELOV, V. V. 131(6)
SOKOLOV, N. A. 191(6)
STRAKHOV, V. N. 240(5)*
STRELKOV, N. A. 254(5)*
SUKHAREV, A. G. 23(6)
SUZDENKOV, M. V. 278(3)*
SVESHNIKOV, A. G. 262(5)*

TARASENKO, L. N. 272(5)*
TARASOV, S. P. 167(1)
TARASOVA, V. P. 33(5)
TER-KRIKOROV, A. M. 30(3)
TETEREV, A. V. 278(3)*
TISHKIN, V. F. 53(1), 178(3)
TOLSTYKH, A. I. 83(2)
TSETSOKHO, V. A. 38(1)
TSURKOV, V. I. 38(4)
TYATYUSHKIN, A. I. 14(6)
TYRTSHNIKOV, E. E. 1(3)

UDODOV, YU. P. 134(3)
UVAROV, V. V. 120(6)

VABISHCHEVICH, P. N. 256(2)*
VALEEV, A. K. 241(6)*
VARLAMOV, V. V. 143(6)
VASIL'EV, F. P. 248(3)*
VASIL'EV, O. V. 14(6)
VEDEN YAPIN, E. N. 160(5)
VELIEV, G. P. 75(3)
VELIEV, M. A. 131(4)
VETOSHKIN, A. M. 235(5)*
VIKHRENKO, V. S. 175(5)
VINOGRADOV, V. N. 217(6)*
VINOKUROV, V. A. 81(4)
VOEVODIN, V. V. 1(3)
VORONIN, V. V. 38(1)
VORONOV, N. A. 89(1)
VYSKREBENTSEV, A. I. 134(5)

YACHIMOVICH, M. D. 248(3)*
YAKOVLEV, S. A. 229(5)
YAKOVLEVA, E. A. 225(4)*
YAKOVLEVA, N. S. 113(1)
YAKUNIN, S. A. 262(5)*
YANEV, N. I. 95(3)
YUFEREV, V. S. 2(1)

ZAGONOV, V. P. 167(2)
ZAIKA, V. V. 61(6)
ZAKHAROV, E. V. 268(5)*
ZAVORIN, A. N. 223(6)*
ZAVRIEV, S. K. 54(3)
ZHIDKOV, E. P. 149(4)
ZHIDOV, I. G. 274(3)*
ZHUK, P. F. 12(2)
ZHURAVLEV, YU. I. 189(5)
ZMIEVSKAYA, G. I. 260(2)*
ZOLOTUKHIN, V. F. 82(3)
ZUEV, YU. A. 156(1)

VOL. 21 1981

Printed in Great Britain by A. Wheaton & Co. Ltd., Exeter

OL.
21
981